

REMARKS

Claims 33-56 are pending. Applicant has cancelled claims 18-32 and added claims 33-56.

The Examiner has rejected claims 18-32 under 35 U.S.C. § 103(a) as being anticipated by Bakshi in view of Lee. Applicant has cancelled these claims.

Bakshi describes a technique for reducing the number of TCP/IP connections that are established when a client and a server communicate using HTTP requests and responses that are transported using the TCP/IP protocol. Normally, each HTTP transaction (i.e., request and response pair) requires that a new TCP/IP connection be established. Several TCP/IP messages need to be sent between the client and the server to establish a connection. To avoid the overhead of establishing a connection for each HTTP transaction, Bakshi describes that an initial HTTP transaction establishes a connection but does not terminate the connection at the end of the transaction. When the next HTTP transaction is performed, the client can send the request using the existing connection that was not terminated.

Applicant would like to make the following observations on the newly added claims. Claims 33-41 are directed to allowing a requested computing system to communicate asynchronously with a requesting computing system that uses a request/response protocol (e.g., HTTP). Normally, a requested computing system can only respond to requests by a requesting computing system. Although a requested computing system, such as a server, could initiate its own transaction, most requesting computing systems, such as clients, have firewall that would prevent such transactions. Applicant's invention as recited by these claims overcomes this problem by having a requesting computing system ensuring that a request is outstanding so that "the requested computing system can send messages asynchronously by responding to an outstanding request." None of the references cited by the Examiner teaches or suggests such an outstanding request.

Claims 42-47 are directed to sending messages bi-directionally using a request/response protocol (e.g., HTTP). Normally, requests and responses are the unit of communications in request/response protocol. The invention of these claims allows a request to further contain messages and a response to contain messages that have been accumulated at the requested computing device. Thus, messages that might normally be sent via a bi-directional protocol can be sent using a request/response protocol. None of the references cited by the Examiner teaches or suggests the sending of messages bi-directionally using a request/response protocol.

Claims 48-52 are directed to allowing messages to be sent reliably from a requesting computing system to a requested computing system using a request/response protocol (e.g., HTTP). Normally, request/response protocols are not reliable in the sense that a request or response is not guaranteed to be delivered. The claims are directed to a requesting computing system resending messages by sending a request that contains messages previously sent but for which a response from the requested computing system indicates that messages were not received. None of the references cited by the Examiner teaches or suggests sending of such messages in requests.

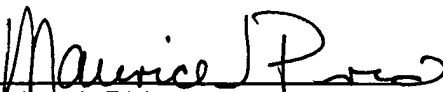
Claims 53-56 are directed to allowing messages to be sent reliably from a requested computing system to a requesting computing system using a request/response protocol (e.g., HTTP). These claims are analogous to claims 48-52 except that reliability is ensured in the other direction. The claims are directed to a requested computing system resending messages by sending a response that contains messages previously sent but for which a request from the requesting computing system indicates that messages were not received. None of the references cited by the Examiner teaches or suggests sending of such messages in responses.

Based upon the above amendments and remarks, applicant respectfully requests reconsideration of this application and its early allowance. If the Examiner has any

questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-8548.

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Respectfully submitted,

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